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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,998

Applicant(s)

MAEHARA, FUMIO

Examiner

JOSEPH G. USTARIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) were submitted on July 20, 2004 and November 29, 2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

2. Claims 17-27 are objected to under 37 CFR 1.75.

3. Claim 17 recites the limitation "said digest video" in page 15 lines 16 and 18-19. There is insufficient antecedent basis for this limitation in the claim. It is unclear which "digest video" the antecedent basis is based on (e.g. the digest video found in line 7 or the extracted digest video found in line 14). The examiner will assume that the "digest video" in line 7 is the same as the "digest video" in line 14.

Claim 20 recites the limitation "said digest video" in page 16 line 5. There is insufficient antecedent basis for this limitation in the claim. It is unclear which "digest video" the antecedent basis is based on (e.g. the digest video found in page 15 line 7 or the extracted digest video found in page 15 line 14). The examiner will assume that the "digest video" in page 15 line 7 is the same as the "digest video" in page 15 line 14.

Claim 24 recites the limitation "said digest video" in page 16 line 24. There is insufficient antecedent basis for this limitation in the claim. It is unclear which "digest video" the antecedent basis is based on (e.g. the digest video found in lines 17-18 or

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the extracted digest video found in line 22). The examiner will assume that the "digest video" in lines 17-18 is the same as the "digest video" in line 22.

Claim 26 recites the limitation "said digest video" in page 17 line 4. There is insufficient antecedent basis for this limitation in the claim. It is unclear which "digest video" the antecedent basis is based on (e.g. the digest video found in page 16 lines 17-18 or the extracted digest video found in page 16 line 22). The examiner will assume that the "digest video" in page 16 lines 17-18 is the same as the "digest video" in page 16 line 22.

Claim 27 recites the limitation "said digest video" in page 17 lines 16 and lines 18-19. There is insufficient antecedent basis for this limitation in the claim. It is unclear which "digest video" the antecedent basis is based on (e.g. the digest video found in line 8 or the extracted digest video found in line 14). The examiner will assume that the "digest video" in line 8 is the same as the "digest video" in line 14.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and

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Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. *O'Reilly*, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

5. Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 28 defines a program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent that is executed

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by a computer in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

6. Furthermore, the specification, at page 31 defines the claimed computer readable medium as encompassing statutory media such as a "ROM", "hard drive", "optical drive", etc, as well as ***non-statutory*** subject matter such as a "signal", transmission medium of Internet, light, electric wave, sound wave, etc.

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, transmission medium of Internet, light, electric wave, sound wave, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 17, 19-24, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henthorn et al. (US20030084454A1) in view of Kimura et al. (US006954419B1).

Regarding claim 17, Henthorn et al. (Henthorn) discloses a digest video providing system (See Fig. 1), comprising:

a digest video providing apparatus (See Fig. 1, 30) of preparing and providing a digest video (e.g. the DVD Movie 21 is a compilation of video data cells that makes up the whole movie) (See Fig. 1, DVD 21);

an information terminal (See Fig. 2, set top box 25) of receiving said digest video provided from said digest video providing apparatus and displaying said received digest video (See Fig. 2, television 24), wherein

said digest video providing apparatus has:

providing means (See Fig. 1, server 12) of providing said digest video, and

said information terminal has displaying means (See Fig. 2, 24) of receiving and displaying said digest video provided by said providing means.

However, Henthorn does not disclose explicitly disclose that the digest video providing apparatus has:

retrieval means of retrieving multi-angle video from AV data which is time-sequential and in which the multi-angle video is partially inserted in video which is not the multi-angle video; and

digest video specification means of extracting digest video which is multi-angle video from said multi-angle video retrieved by said retrieval means.

Kimura et al. (Kimura) discloses a DVD playback system (See Fig. 8). Kimura discloses that the digest video providing apparatus has:

retrieval means (See Fig. 8, data read unit 11) of retrieving multi-angle video (See Fig. 6; e.g. different angle video) from AV data (See Figs. 1-7; e.g. the data stored on the DVD) which is time-sequential (See Fig. 16, the different angle videos are played in block order or "time-sequential" and col. 7 lines 38-43, col. 11 lines 40-45) and in which the multi-angle video (e.g. one of the angle video from blocks 2-4) is partially inserted in video which is not the multi-angle video (e.g. block 1 and 5 is not the multi-angle video) (See Fig. 16); and

digest video specification means (See Fig. 8, DSP 24 and system controller 60) of extracting digest video which is multi-angle video (e.g. extracting the compilation of multiple angle video from the DVD) (See Figs. 6 and 10, steps 105-107; col. 7 lines 49-61) from said multi-angle video retrieved by said retrieval means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the digest video providing apparatus disclosed by Henthorn to include a retrieval means of retrieving multi-angle video from AV data which is time-sequential and in which the multi-angle video is partially inserted in video which is not the multi-angle video and a digest video specification means of extracting digest video which is multi-angle video from said multi-angle video retrieved by said retrieval means, as taught by Kimura, in order to provide a multi-angle reproduction device that provides quick angle switching (See col. 2 lines 32-36).

Regarding claim 19, wherein said digest video providing apparatus has an address management table (See Kimura Fig. 2, VGMI) of making correspondence of digest video to AV data of a complete edition (e.g. relating the DVD movie to all the data stored on the DVD in order to provide a complete edition of the movie) (See Kimura col. 5 lines 1-10), and said providing means provides said AV data of the complete edition using said address management table when said AV data of the complete edition is requested by specifying said digest video (e.g. the DVD reproduction device provides the complete movie, when requested by the user, using the VGMI in order to successfully read the data off the DVD).

Regarding claim 20, wherein said digest video specification means extracts said digest video from said multi-angle video in just the state said multi-angle video is (e.g. the DVD reproduction device extracts the multi-angle in the current reproduction time zone) (See Kimura col. 9 lines 55-60), and said displaying means can switch and display said multi-angle video (See Kimura col. 10 lines 32-37).

Regarding claim 21, wherein said digest video providing apparatus has address management table (See Kimura Fig. 2, VGMI) (e.g. relating the DVD movie to all the data stored on the DVD in order to provide a complete edition of the movie) (See Kimura col. 5 lines 1-10) of including branch target information of multi-angle video (See Kimura Fig. 6, AGL_C#1-3) (e.g. the AGL_C#1-3 has the branch target information of multi-angle video C#1 ILVU#n) (See Kimura col. 6 lines 5-41), and said displaying means can switch and display said multi-angle video using said branch target information (e.g. the DVD reproduction device provides the requested multi-angle video,

when requested by the user, using the VGMI and AGL_C#1-3 in order to successfully provide the correct multi-angle video).

Regarding claim 22, further comprising accounting means of performing an accounting process before transmitting said AV data of said complete edition (See Henthorn Fig. 4, step 406; paragraphs 0018-0019).

Regarding claim 23, wherein said AV data is stored on a DVD (See Henthorn Fig. 1, DVD 21).

Claim 24 contains the limitations of claim 17 (wherein Henthorn in view of Kimura disclose a digest video providing apparatus) and is analyzed as previously discussed with respect to that claim.

Claim 26 contains the limitations of claims 20 and 24 and is analyzed as previously discussed with respect to those claims.

Claim 27 contains the limitations of claim 17 (wherein the system disclosed by Henthorn in view of Kimura performs the method) and is analyzed as previously discussed with respect to that claim.

Claim 28 contains the limitations of claim 17 (wherein Henthorn discloses software or program which is used to direct a computer to function (See paragraph 0017)) and is analyzed as previously discussed with respect to that claim.

9. Claims 18-22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henthorn et al. (US20030084454A1) in view of Kimura et al.

(US006954419B1) as applied to claims 17 and 24 above, and further in view of White et al. (US20030197785A1).

Regard claim 18, Henthorn in view of Kimura does not explicitly disclose wherein said multi-angle video comprises a plurality of videos which are recorded by a plurality of cameras and which proceed concurrently at the same time period and one of which can be selected freely by user.

White et al. (White) discloses a multi-angle video providing system. White discloses a plurality of videos which are recorded by a plurality of cameras (See Fig. 1, 102a-102d) and which proceed concurrently at the same time period (e.g. the cameras are recording the event at the same time) (See paragraph 0023) and one of which can be selected freely by user (See paragraph 0026). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Henthorn in view of Kimura to have the multi-angle video comprise a plurality of videos which are recorded by a plurality of cameras and which proceed concurrently at the same time period and one of which can be selected freely by user, as taught by White, in order to give the users a different viewing perspective for the same event that is not available from a single panoramic view (See paragraph 0005).

Claim 19 contains the limitations of claims 18 and 19 (as discussed above) and is analyzed as previously discussed with respect to those claims.

Claim 20 contains the limitations of claims 18 and 20 (as discussed above) and is analyzed as previously discussed with respect to those claims.

Claim 21 contains the limitations of claims 18 and 21 (as discussed above) and is analyzed as previously discussed with respect to those claims.

Claim 22 contains the limitations of claims 18 and 22 (as discussed above) and is analyzed as previously discussed with respect to those claims.

Claim 25 contains the limitations of claims 18 and 24 and is analyzed as previously discussed with respect to those claims.

Claim 26 contains the limitations of claims 25 and 26 (as discussed above) and is analyzed as previously discussed with respect to those claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please take note of Taylor (WO 96/19892) and Hensgen et al. (US20030208771A1) for their similar multi-camera/video system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH G. USTARIS whose telephone number is (571)272-7383. The examiner can normally be reached on M-F 7:30-5 PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Joseph G Ustaris/
Examiner, Art Unit 2623
February 29, 2008